

Creating Animated Graphics for the Web

Creating an animated image for the Web is incredibly simple. Those banner ads you see with animation are both simple to create and relatively small to load, compared to old-fashioned animations. This chapter takes you through what you need to know to create animated GIFs (the most popular type of animation on the Web). It also discusses other options you have for more sophisticated animations.

Introducing Animated GIFs

Animated GIFs are an easy way to add motion to your Web page without any programming, using only the simplest of tools. Animated GIFs are like slide shows. The steps involved are simple:

1. Plan the animation.
2. Create the individual frames of the slides in your favorite image creation tool.
3. String your images together into a long “filmstrip” using a GIF animation tool.
4. Modify the animated GIF properties, such as palette information, number of times you want the images to loop (once, 20 times, or continuously), and image size.

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CHAPTER



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5. Export your animated GIF from the animation tool to a .GIF file.
6. Add your animation to your HTML using the IMAGE element.

Planning Your Animation

As with anything else, planning is essential to creating effective animated GIFs. Suppose you wanted to animate a stick figure jumping up into the air, and then landing and doing a flip. Because you want this to be a loop, you also need to get the stick figure back to the starting point gracefully, so the loop can begin again.

How many images do you need? Figure 38-1 is the starting point.

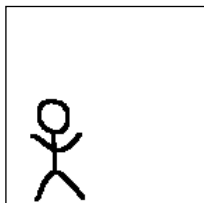


Figure 38-1: This is the starting point for stick-art animation.

Then the figure must squat to get some momentum for a big jump. Figures 38-2 and 38-3 capture the squat and the jump.

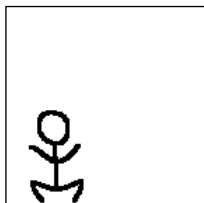


Figure 38-2: The stick figure squats.

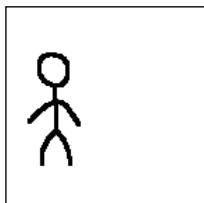


Figure 38-3: The stick figure jumps.

How should the stick figure land? The easiest thing would be to land the stick figure back in the squat from which it started and use this as the beginning motion for the big flip. Figure 38-2 can be reused for the landing position. This means it is time for the flipping figures. Figures 38-4 and 38-5 show the flip.

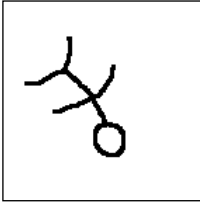


Figure 38-4: The stick figure begins its flip.

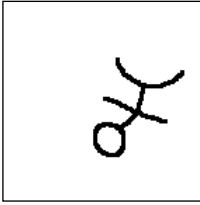


Figure 38-5: The stick figure continues its flip.

Again, the stick figure needs to land. Fortunately, the squatting figure can be reused, by just moving the squatting character over to the right in your image editor. The standing figure (Figure 38-1) can also be moved to the right in your image editor to make the stick figure stand where it should have landed. The two figures created are shown in Figures 38-6 and 38-7.

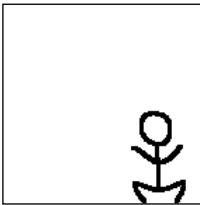


Figure 38-6: The stick figure lands.

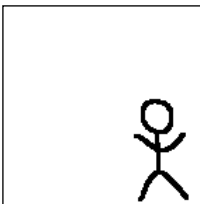


Figure 38-7: The stick figure completes its flip.

If an animated GIF weren't a loop, the animation would end there. But because the character needs to get back to the beginning, another squat and the two flipping frames, in reverse order, of course, will return it to the beginning.

Creating the Animation

Creating the animation requires a bit of artistic talent and a lot of imagination. Just as when you were a child and you created flip books of animation, each image should be only a slight variation of the previous image. You want to be careful not to use too much motion in your animation because the size of the file grows as the number of still images in your animation grows. By limiting the dimensions of the images and the bit-depth, however, you can help limit the size of the file.

**Note**

Your animated GIF has *frames*. Within each frame there can be one or more *images*. You can create interesting effects by changing the size of the image in the frame to make it appear to be getting closer or farther away.

You want to follow some guidelines when creating your animations:

- ♦ Keep all frames the same size.
- ♦ Keep colors to a minimum.
- ♦ Limit the amount of motion from one image to the next.
- ♦ Limit the number of frames.

As with anything else, you need to plan your animation carefully so the effect you desire is achieved in a reasonable number of images. When you export the animation from the animation tool, you can specify the file to be a vertical row of images or a horizontal row of images. The effect can be different depending on which direction you choose.

Because the previous example uses simple stick figures, creating the animation is pretty fast.

Using a GIF Animation Editor

Plenty of useful GIF animation editors are available. You can do a search on the Web to find the most recent tools available. At one site, you can create your own animated GIF banner with text of your choice.

An easy and relatively inexpensive tool is Gamani's GIF Movie Gear (see Figure 38-8). It is \$30 shareware available from www.gamani.com. It takes care of all the

settings you might want to manipulate, without requiring you to learn anything technical about animated GIFs. Everything takes place in well-documented dialog boxes.

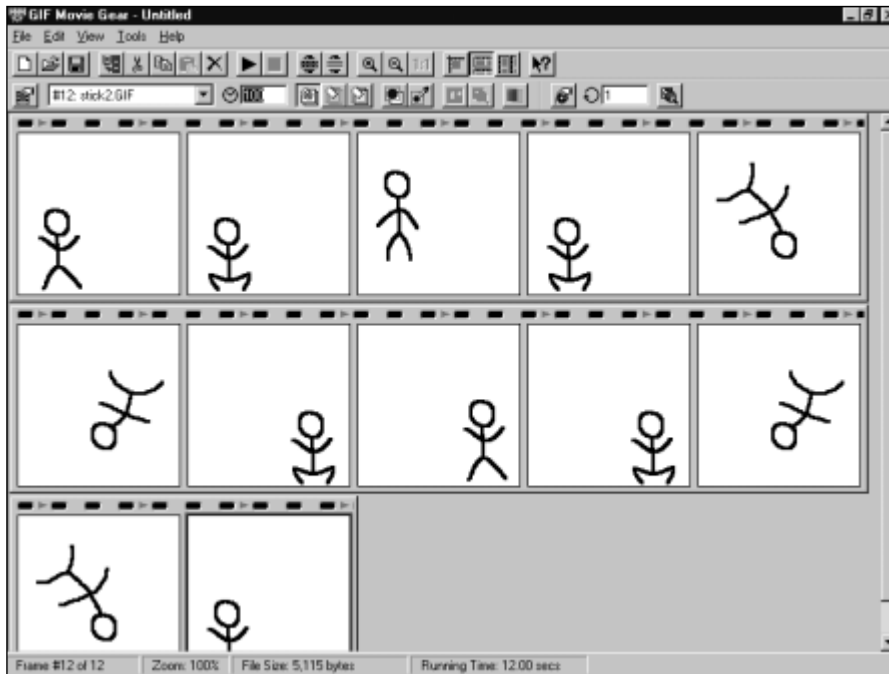


Figure 38-8: GIF Movie Gear makes creating animated GIFs easy.



You can find a 30-day version of GIF Movie Gear 2.63 on the CD-ROM in the back of this book.

In Figure 38-8, the animated GIF uses the seven still frames shown in Figures 38-1 to 38-7. Some of them are reused, which saves time in creating the images. The film-strip is created as a horizontal strip because the action of the animation is mostly horizontal. It could have been just as easily set as a vertical strip.

You can do everything from optimizing the palette to sizing the frames to setting the number of loops using GIF Movie Gear. You can preview your animated GIF right in Movie Gear. When you are satisfied, you can export the file to a .GIF file for use in your Web pages.

Including an Animated GIF on Your Page

Including an animated GIF on your page is just like including any other GIF on a page. You use the `IMG` element. The following HTML is all you need to include the GIF, which is included on the CD-ROM:

```
<IMG src="patrice.gif" width="144" height="144" alt="stick  
figure acrobatics">
```

You could also make this animated GIF a link to another page by including the `IMG` element within an `A` element.

Testing Your Animation

As with everything else on your page, you want to test your animation from your browser and from a variety of other browsers, to make sure it works as you expect. You also want to run your page through Bobby, which is discussed in Chapter 24, to make sure the download time for your page with the animation is reasonable. Finally, you want to be sure to use the `alt` attribute of the `IMG` element so visitors looking at your page with a browser that doesn't support animated GIFs know what they are missing.

More Animation Options

You can use other techniques to add animation to your page. Some of your options include

- ♦ Shockwave/Flash
- ♦ Movies
- ♦ Java applets
- ♦ ActiveX controls

Shockwave/Flash

Shockwave and Flash are a proprietary animation system owned by Macromedia. To create a shockwave or a flash file, you need to use either Authorware or Director. To play a shockwave or a flash file, your site visitors need to have a special plug-in loaded.



Chapter 42 discusses Shockwave and Flash in more detail.

Movies

Another way to add motion to your page is to add a movie. The problem with most movie files is they tend to be considerably larger than animated GIF files. This means they take a lot of time to download — although you can do things to get them to start playing before they complete the download — and they take up a lot of space on your server. Movies will run in most browsers without any additional plug-ins.



Chapter 41 discusses video in more detail.

Java applets

If you are comfortable with programming, you might find Java to your liking. With Java, you can create more than just simple animations. Generally, when you work with Java, you work with a dataset and some actions on a dataset. The previous stick figure animation wouldn't be well-suited to a Java animation. Java files tend to be small, but sometimes run slowly. Additionally, the visitor to your site must have a Java-enabled browser.



Chapter 43 discusses Java Applets in more detail.

ActiveX controls

ActiveX controls can give you lots of interesting animation effects without a lot of work. The only real work involved is locating them. Plenty of ActiveX controls are available (free or for a small fee). Once you find them, you include the reference to them in your HTML and visitors to your site — if their browsers can handle it — can see your interesting animation effects with relatively little work. The downside of ActiveX controls is they install software directly on the visitor's computer. Cautious visitors won't give your page permission to install the control.



Chapter 42 discusses ActiveX controls in more detail.

From Here



Jump to Chapter 41 and learn about creating video for the Web.

Jump to Chapter 42 and learn about plug-ins you can use to spice up your Web page.

Proceed to Chapter 39 and learn about designing and implementing imagemaps.

Summary

In this chapter you learned how to create animated GIFs for your page. You need a basic image editor (anything that can create an image and save it as a GIF), a GIF animation editor, and some imagination. The most important thing is planning your animation well, so it works as you expect. You also learned about alternatives for adding animation and motion to your page.

